THE DISCOVERY CLOUD

Accelerating Science via Outsourcing and Automation

September 18, 2014

1:10 – 3:00 p.m.

Physics Auditorium TA-3, SM-215

Unclassified – Open to Badge Holders

IAN FOSTER

Argonne National Laboratory and University of Chicago

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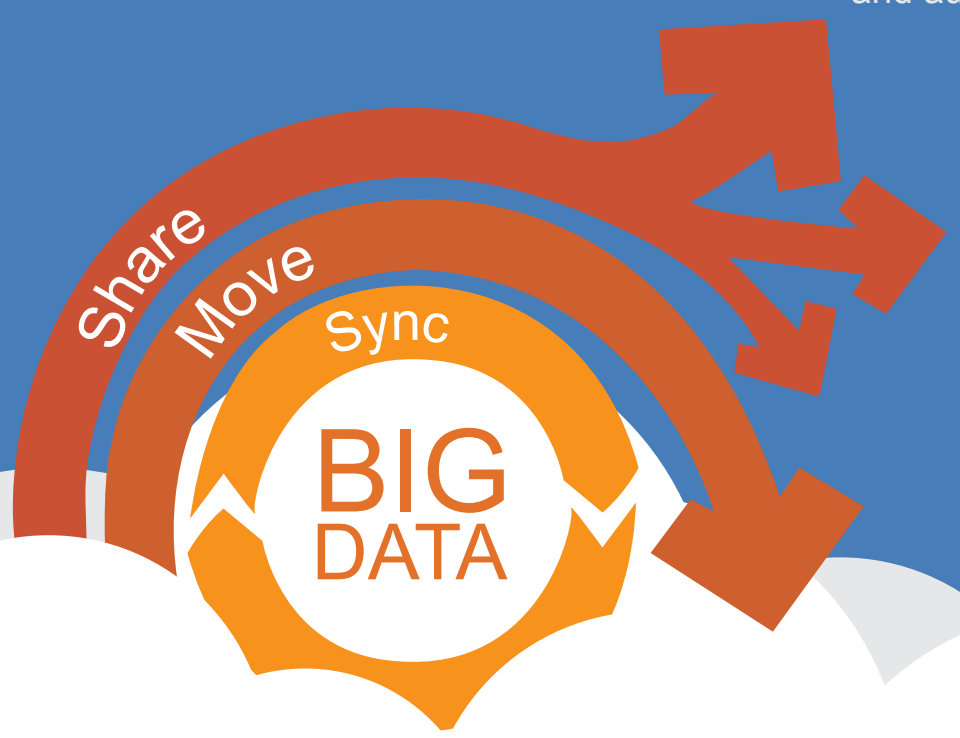
We have made much progress over the past decade toward harnessing the collective power of IT resources distributed across the globe. In high-energy physics, astronomy, and climate, thousands work daily within virtual computing systems with global scope. But we now face a far greater challenge: Exploding data volumes and powerful simulation tools mean that many more–ultimately most?–researchers will soon require capabilities not so different from those used by such big-science teams. How are we to meet these needs? Must every lab be filled with computers and every researcher become an IT specialist? Perhaps the solution is rather to move research IT out of the lab entirely: to leverage the "cloud" (whether private or public) to achieve economies of scale and reduce cognitive load. In this talk, I explore the past, current, and potential future of large-scale outsourcing and automation for science.



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